UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/645,438	08/21/2003	Tony McCormack	920673-94702	7992

23644   7590   10/03/2007
BARNES & THORNBURG LLP
P.O. BOX 2786
CHICAGO, IL 60690-2786

EXAMINER
CHEA, PHILIP J

ART UNIT	PAPER NUMBER
2153	

MAIL DATE	DELIVERY MODE
10/03/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/645,438	MCCORMACK ET AL.
	Examiner	Art Unit	
	Philip J. Chea	2153	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 August 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a)☐ All b)☐ Some * c)☐ None of:

　　　1.☐ Certified copies of the priority documents have been received.

　　　2.☐ Certified copies of the priority documents have been received in Application No. _____.

　　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
　　Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
　　Paper No(s)/Mail Date _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

This Office Action is in response to an Amendment filed August 7, 2007. Claims 1-17 are

currently pending. Any rejection not set forth below has been overcome by the current Amendment.

Claim Rejections - 35 USC § 112

1.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly
claiming the subject matter which the applicant regards as his invention.

2.   Claim 17 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to

particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3.   Claim 17 recites the limitation "the replication service memory space" in lines 5-6. There is

insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

4.   The following is a quotation of the appropriate paragraphs of 35 U.S.C
102 that form the basis for the rejections under this section made in this
Office action:

A person shall be entitled to a patent unless - -

(e) the invention was described in a patent granted on an
application for patent by another filed in the United States
before the invention thereof by the applicant for patent, or on
an international application by another who has fulfilled the
requirements of paragraphs (1), (2), and (4) of section 371(c) of
this title before the invention thereof by the applicant for
patent.

5.   Claims 1-7 are rejected under 35 USC 102 (e) as being anticipated by Hemm et al (Pub #

2004/0193475).

With respect to claim 1, Hemm et al teach a limitation for assigning to a received contact a priority

and a skillset identifier, whereby the contact can be prioritized relative to other contacts (see e.g. [0029],

lines 1-5, which teaches this limitation because contacts within a contact-center's contact queues are

assigned different contact vectors and given priority based on a number of factors, including the agents

skill level), creating a new software object for said received contact (see e.g. [0029], lines 14-16, which teaches this limitation because a vector is created in assigning priority and servicing each contact), determining a queuing position for said new software object relative to at least one other software object representing a contact having a similar skillset identifier similar to said skillset identifier assigned to said received contact (see e.g. [0029], lines 1-3, which teaches this limitation because contacts are assigned by their contact vector and assigned to each agent queue based upon the matching skill level of each agent), and adding to said new software object a reference to said at least one other software object, storing in memory a collection of said software objects each containing a reference to at least one other object provides a prioritized queue for a skillset (see e.g. [0029], lines 12-14, which teaches this limitation because the contact vector associated with each contact has predetermined criteria in relation to other contacts to provide for the matching of agent with each contact based on the prioritized agent skill level, shown in lines 11-13).

With respect to claim 2, Hemm et al teach a limitation for an object including references to two other objects having a similar skillset identifier (see e.g. [0029], lines 22-25, which teaches this limitation because the contact vector assigns all contacts to each queue based on skill required to handle each contact (Note that the prior art reads on the claim limitation because the contact vector acts as a reference to each object having a similar skillset identifier because the contact vector groups each contact based on requiring similar skill level)) said two other objects representing the contacts immediately ahead of and behind it within a queue, except in the case in which the newly created object is positioned at an end of a queue (see e.g. [0029], lines 22-25, which teaches this limitation because the contact vector assigns all contacts to each queue based on skill required to handle each contact, whether the first or last contact placed in the queue).

With respect to claim 3, Hemm et al teach a limitation for modifying said at least one other object with a reference to the newly created object (see e.g. [0029], lines 22-25, which teaches this limitation because each contact is assigned the contact vector, which groups each contact based on skill requirements, therefore, having knowledge each contact).

With respect to claim 4, Hemm et al teach a limitation for the received contact being assigned multiple skillset identifiers, and the step of adding a reference comprises adding separate references to objects in different queues (see e.g. [0029], lines 32-34, which teaches this limitation because an agent may possess different levels of skill and be placed in different agent queues to service the one or more skills assigned to each contact by the contact vector).

With respect to claim 5, Hemm et al teach a limitation for responding to a network request by sending over the network details of those objects at the head of a queue matching criteria specified in the request (see e.g. [0003], lines 4-7 and [0013], lines 7-9, which teaches this limitation because a list of all of the agent skills, for agents at the top of each agent queue, is provided in order to service each contact/customer and match each transition with the most qualified agent).

With respect to claim 6, Hemm et al teach a limitation of objects being created and maintained by a contact manager (see e.g. [0011], lines 13-15, which teaches this limitation because a contact manager is implemented to maintain the transaction initiator associated with each contact), and a queuing module, which carries out said determination of said queuing position according to information associated with the new object, the queuing module being further capable of adding said reference to said object (see e.g. [0011], lines 2-5, which teaches this limitation because a service priority is embedded within the invention for each contact, which includes queue position).

With respect to claim 7, Hemm et al teach a limitation of a contact manager having a memory space in which objects are stored (see e.g. [0045], lines 1-3, which teaches this limitation because data retained from each contactor is stored in memory), the queuing module having a memory space in which objects are updated (see e.g. [0045], lines 8-10, which teaches this limitation because memory is also embedded to store content information for each contact and updated when the contactor resumes service), and said memory spaces either form part of a common space or a replication service is provided to update changes to an object effected in one of the memory spaces with corresponding changes to a copy of the object in the other of the memory spaces (see e.g. [0045], lines 14-16, which teaches this limitation because the memory is capable of storing changes and revisions made by the contactor upon further processing).

6.   Claim 12 is rejected under 35 USC 102 (e) as being anticipated by Mears et al (Pat # 7,092,509).

With respect to claim 12, Mears et al teach a limitation for a network resource having the

capability of handling contacts with certain criteria becoming available (see spec, sec. 1, lines 27-29,

which teaches this limitation because agents are embedded to handle contacts within the call center

based on criteria associated with the agents and each contact), requesting from each contact centre a

highest priority queued object representing a contact queued at that contact centre which matches said

criteria (see spec, sec. 47, lines 28-30, which teaches this limitation because the assignment manager

within each contact center identifies the contact with the highest priority when the call center system is in

need of identifying which contact within the queue to service), receiving information relating to each such

highest priority queued object from said contact centres (see spec, sec. 47, lines 28-30, which teaches

this limitation because the assignment manager within each contact center identifies the contact with the

highest priority), determining which object represents the contact with the highest priority and/or best

match for the available resource (see spec, sec. 43, lines 35-38, which teaches this limitation because

certain 'media' skills are assigned to each contact object in order to assign the object to a campaign of

the contact center and to determine which contact has highest priority, as shown in sec. 47, lines 28-30),

and issuing routing instructions to cause said contact to be routed to the resource (see spec, sec. 3, lines

34-36, which teaches this limitation because a routing component is implemented to route contacts to

agents).

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103 which forms the basis for
all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically
disclosed or described as set forth in section 102 of this title, if the
differences between the subject matter sought to be patented and the prior
art are such that the subject matter as a whole would have been obvious at
the time the invention was made to a person having ordinary skill in the art
to which said subject matter pertains. Patentability shall not be negatived
by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

8.   Claims 8 and 9 are rejected under 35 U.S.C. 103 as being unpatentable over Zellers et al (Pub # US 2003/0154244) in view of Hemm et al (Pub # 2004/0193475).

In reference to claims 8 and 9, Zellers et al teach a method including the limitation of each contact being represented by a software object maintained at a contact centre (see e.g. [0020], lines 13-15, which teaches this limitation because a client creates a client software object for communication purposes), and each said software object containing references to one or more other software objects maintained at the same contact centre (see e.g. [0076], lines 2-4, which implies this limitation because the software object designated for a corresponding client has the software object implementation and is aware of other requests in the message queue handled by the next available worker).

Zellers et al explicitly teach the limitations as disclosed above except for providing a queue of objects at each contact centre, a network resource having the capability of handling contacts with certain criteria becoming available, requesting from each contact centre the highest priority queued object matching said criteria; receiving information relating to each such highest priority queued object from said contact centres; determining which object represents the contact with the highest priority and/or best match for the available resource, issuing routing instructions to cause said contact to be routed to the resource, and the contact centre which maintained the object representing the selected contact carries out the further step of removing the selected object from its queue and updating those objects which contain references to the selected object, to thereby update the top of one or more queues represented at that contact centre by a collection of objects.

The general concept of providing a queue of objects at each contact centre, a network resource having the capability of handling contacts with certain criteria becoming available, requesting from each contact centre the highest priority queued object matching said criteria; receiving information relating to

each such highest priority queued object from said contact centres; determining which object represents

the contact with the highest priority and/or best match for the available resource, issuing routing

instructions to cause said contact to be routed to the resource, and the contact centre which maintained

the object representing the selected contact carries out the further step of removing the selected object

from its queue and updating those objects which contain references to the selected object, to thereby

update the top of one or more queues represented at that contact centre by a collection of objects is well

known within the art as illustrated by Hemm et al, which discloses a method including limitations providing

a queue of objects at each contact centre (see e.g. [0029], lines 1-3, which implies this limitation because

a queue of contacts is provided at each contact center), a network resource having the capability of

handling contacts with certain criteria becoming available (see e.g. [0003], lines 1-3, which teaches this

limitation because agents are provided for handling transaction associated with each contact, note that

the applicant's spec stated that a network resource may be an agent), requesting from each contact

centre the highest priority queued object matching said criteria (see e.g. [0016], lines 14-16, which implies

this limitation because the agent will schedule a callback to a high value contact or a contact with a high

service priority, when the service priority is assigned), receiving information relating to each such highest

priority queued object from said contact centres (see e.g. [0016], lines 1-3 and 14-16, which implies this

limitation because work item service priority is assigned to each contact), determining which object

represents the contact with the highest priority and/or best match for the available resource (see e.g.

[0003], lines 2-6, which implies this limitation because a math is determined for the best qualified agent to

service the contact with the skill requirements in question), issuing routing instructions to cause said

contact to be routed to the resource (see e.g. [0038], lines 8-10, which implies this limitation because the

contact for each particular request is routed to a specific contact center resource), and the contact centre

which maintained the object representing the selected contact carries out the further step of removing the

selected object from its queue and updating those objects which contain references to the selected

object, to thereby update the top of one or more queues represented at that contact centre by a collection

of objects (see e.g. [0042], lines 17-20, which implies this limitation because contacts reach the head of

each queue upon completion and removal of a previous work item or a termination, as shown in sec. [0045], lines 29-30).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Zellers et al to include the use of providing a queue of objects at each contact centre, a network resource having the capability of handling contacts with certain criteria becoming available, requesting from each contact centre the highest priority queued object matching said criteria; receiving information relating to each such highest priority queued object from said contact centres; determining which object represents the contact with the highest priority and/or best match for the available resource, issuing routing instructions to cause said contact to be routed to the resource, and the contact centre which maintained the object representing the selected contact carries out the further step of removing the selected object from its queue and updating those objects which contain references to the selected object, to thereby update the top of one or more queues represented at that contact centre by a collection of objects as taught by Hemm et al in order to maintain a contact center and effectively service contacts within each queue, as implied in sec. [0004], lines 3-6 of Hemm et al.

9.   Claim 10 is rejected under 35 U.S.C. 103 as being unpatentable over Hemm et al (Pub # 2004/0193475) in view of Pauly et al (Pat # 6,910,053).

In reference to claim 10, Hemm et al teach a method including the limitation of a contact center with a network resource having the capability of handling contacts with certain criteria becoming available (see e.g. [0029], lines 26-28, which teaches this limitation because contacts are handled with certain needs within the contact center), determining from the network queue the highest priority queued object matching said criteria (see e.g. [0011], lines 3-6, which implies this limitation because service priority is assigned to each transaction within a queue, based on specifics in relation to each transaction), and issuing routing instructions to cause said contact to be routed to the resource (see e.g. [0038], lines 6-8, which implies this limitation because instructions are forwarded to caused the contact to become serviced by a particular agent within each call center).

Hemm et al explicitly teach the limitations as disclosed above except for maintaining a network queue of contacts by automatically replicating changes in contact objects with corresponding changes in contact objects in said network queue.

The general concept of maintaining a network queue of contacts by automatically replicating changes in contact objects with corresponding changes in contact objects in said network queue is well known within the art as illustrated by Pauly et al, which discloses a method including limitations of maintaining a network queue of contacts by automatically replicating changes in contact objects with corresponding changes in contact objects in said network queue (see spec, sec. 4, lines 4-7, which implies this limitation because change information in an outbound queue are transmitted as replication objects to represent change information within a database, as shown in sec. 3, lines 30-32).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hemm et al to include the use of maintaining a network queue of contacts by automatically replicating changes in contact objects with corresponding changes in contact objects in said network queue as taught by Pauly et al in order to successfully control a database of customer attributes including contact information, as implied in sec. 1, lines 19-21 of Pauly et al.

10.   Claim 11 is rejected under 35 U.S.C. 103 as being unpatentable over Hemm et al (Pub # US 2004/0193475) in view of Florman et al (Pat # US 7,117,244).

In reference to claim 11, Hemm et al teach a method including the limitation of assigning to a received contact a priority and a skillset identifier (see e.g. [0029], lines 10-12, which teaches this limitation because contacts are assigned to agent queues based on skill required to handle each contact and priority), prioritizing a contact relative to other contacts (see e.g. [0011], lines 3-6, which implies this limitation because service priority is assigned to each transaction within a queue, based on specifics in relation to each transaction of all contacts), determine a queuing position for said object relative to at least one other object representing a contact having a similar skillset identifier (see e.g. [0029], lines 19-21, which implies this limitation because contact vectors, including parameters for all queued contacts, are used to position each contact), and adding to said object a reference to said at least one other object,

whereby a collection of such objects each containing a reference to at least one other object provides a

prioritized queue for a skillset (see e.g. [0029], which implies this limitation because the contact vector

virtually references all contacts by referencing predetermined criteria for each contact based on agent

skill requirements and other considerations).

Hemm et al explicitly teach the limitations as disclosed above except creating a software object

for said contact.

The general concept of creating a software object for a contact is well known within the art as

illustrated by Florman et al, which discloses a method including limitations of creating a software object

for each contact (see claim 6, lines 2-5, which teaches this limitation because the software objects are

implemented to provide contact and help center information).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to

modify Hemm et al to include the use of creating a software object for a contact as taught by Florman et

al in order to improve upon the implementation of client software activation requests, as implied in sec. 1,

lines 43-45 of Florman et al.

11.   Claim 13 is rejected under 35 U.S.C. 103 as being unpatentable over Mears et al (Pat #

7,092,509) in view of Florman et al (Pat # US 7,117,244).

In reference to claim 13, Mears et al teach a method including the limitation of a workflow

processor for assigning to a received contact a priority and a skillset identifier (see spec, sec. 47, lines

28-30, which teaches this limitation because the assignment manager within each contact center

identifies the contact with the highest priority, also see fig. 7, which shows a skill assignment window for

issuing system related skills to each agent for servicing contacts with related skills), the contact being

prioritized relative to other contacts (see fig. 71, which shows contacts being reprioritized within the

contact queue), a queuing manager for determining a queuing position for said object relative to at least

one other object representing a contact having a similar skillset identifier (see spec, sec. 47, lines 48-52,

which implies this limitation because an assignment manager and an agent manager match a contact out

of the management queue with a matching agent , also see lines 58-60 of the same section, which shows

contacts moving up in a service queue when a matching agent is found), and an object modification

module for adding to said object a reference to said at least one other object, whereby a collection of

such objects each containing a reference to at least one other object provides a prioritized queue for a

skillset (see spec, sec. 46, lines 62-65, which implies this limitation because the contact objects to default

campaigns which store characteristics of all queued contacts).

The general concept of an object creation module for creating a software object for said contact is

Mears et al explicitly teach the limitations as disclosed above except an object creation module

for creating a software object for said contact.

The general concept of an object creation module for creating a software object for said contact is

well known within the art as illustrated by Florman et al, which discloses a method including limitations of

an object creation module for creating a software object for said contact (see claim 6, lines 2-5, which

teaches this limitation because the software objects are implemented to provide contact and help center

information).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to

modify Mears et al to include the use of an object creation module for creating a software object for said

contact as taught by Florman et al in order to improve upon the implementation of client software

activation requests, as implied in sec. 1, lines 43-45 of Florman et al.

12.   Claim 14 is rejected under 35 U.S.C. 103 as being unpatentable over Mears et al (Pat #

7,092,509) in view of Hemm et al (Pub # US 2004/0193475).

In reference to claim 14, Mears et al teach a method including the limitation of a request

generator for generating a request, upon a network resource having the capability of handling contacts

with certain criteria becoming available (see spec, sec. 42, lines 10-12, which teaches this limitation

because an ACD proxy is used to request creation of a contact object to be serviced by an agent that us

able to handle the contact in association with its required criteria), said request being effective to

determine from each contact centre the highest priority queued object at that contact centre matching

said criteria (see spec, sec. 47, lines 28-30, which teaches this limitation because the assignment

manager within each contact center identifies the contact with the highest priority, based on designated

criteria, as shown in claim 1), a network connection for forwarding said request to each contact centre

and receiving therefrom information concerning the highest priority queued object at each contact centre

matching said criteria (see spec, sec. 8, lines 53-55, which implies this limitation because service

considerations for requests submitted from a contact to a call center agent can be communicated through

a PSTN or a LAN connection as shown in sec. 9, lines 10-12), and comparison means for determining

which object represents the contact with the highest priority and/or best match for the available resource

(see spec, sec. 47, lines 28-30, which teaches this limitation because the assignment manager within

each contact center identifies the contact with the highest priority, which would obviously comprise

comparing priority with other contacts to one of ordinary skill in the art).

Mears et al explicitly teach the limitations as disclosed above except a routing instruction

generator for issuing routing instructions to cause said contact to be routed to the resource.

The general concept of a routing instruction generator for issuing routing instructions to cause

said contact to be routed to the resource is well known within the art as illustrated by Hemm et al, which

discloses a method including limitations of a routing instruction generator for issuing routing instructions

to cause said contact to be routed to the resource (see e.g. [0038], lines 6-8, which implies this limitation

because instructions are forwarded to caused the contact to become serviced by a particular agent within

each call center).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to

modify Mears et al to include the use of a routing instruction generator for issuing routing instructions to

cause said contact to be routed to the resource as taught by Hemm et al in order to maintain a contact

center and effectively service contacts within each queue, as implied in sec. [0004], lines 3-6 of Hemm et

al.

13.   Claim 15 is rejected under 35 U.S.C. 103 as being unpatentable over Zellers et al (Pub # US

2003/0154244) in view of Hemm et al (Pub # 2004/0193475).

In reference to claim 15, Zellers et al teach a method including the limitation of a software object

representing a contact at a contact centre (see e.g. [0020], lines 13-15, which teaches this limitation

because a client creates a client software object for communication purposes), said object including a

reference to one or more other such objects located immediately ahead of or behind said object in a

queue (see e.g. [0076], lines 2-4, which implies this limitation because the software object designated for

a corresponding client has the software object implementation and is aware of other requests in the

message queue handled by the next available worker).

Zellers et al explicitly teach the limitations as disclosed above except for an identifier to the

contact which it represents and a skillset identifier enabling it to be identified in a search for objects

representing contacts which match given skillset criteria.

The general concept of providing an identifier to the contact which it represents and a skillset

identifier enabling it to be identified in a search for objects representing contacts which match given

skillset criteria is well known within the art as illustrated by Hemm et al, which discloses a method

including limitations providing an identifier to the contact which it represents and a skillset identifier

enabling it to be identified in a search for objects representing contacts which match given skillset criteria

(see e.g. [0003], lines 3-6, which implies this limitation because transactions requested by each contact

are matched with each agent based on skill considerations).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to

modify Zellers et al to include the use of providing an identifier to the contact which it represents and a

skillset identifier enabling it to be identified in a search for objects representing contacts which match

given skillset criteria as taught by Hemm et al in order to maintain a contact center and effectively service

contacts within each queue, as implied in sec. [0004], lines 3-6 of Hemm et al.

14.   Claim 16 is rejected under 35 U.S.C. 103 as being unpatentable over Zellers et al (Pub # US

2003/0154244) in view of Mears et al (Pat # 7,092,509).

In reference to claim 16, Zellers et al teach a virtual queue of contacts, wherein each contact

within the queue is represented by a software object (see e.g. [0020], lines 13-15, which teaches this

limitation because a client creates a client software object for communication purposes within the

message queue, shown in sec. [0076], lines 2-4), including a reference to one or more other such objects

located immediately ahead of or behind said object in a queue (see e.g. [0076], lines 2-4, which implies this limitation because the software object designated for a corresponding client has the software object implementation and is aware of other requests in the message queue handled by the next available worker).

Zellers et al explicitly teach the limitations as disclosed above except for an identifier to the contact which it represents and a skillset identifier enabling it to be identified in a search for objects representing contacts which match given skillset criteria and wherein the order of contacts within the queue is determinable from the aggregated references between objects.

The general concept of providing an identifier to the contact which it represents and a skillset identifier enabling it to be identified in a search for objects representing contacts which match given skillset criteria is well known within the art as illustrated by Hemm et al, which discloses a method including limitations providing an identifier to the contact which it represents and a skillset identifier enabling it to be identified in a search for objects representing contacts which match given skillset criteria (see fig. 7, which shows a skill assignment window for match skill requirements with each agent and contact) and wherein the order of contacts within the queue is determinable from the aggregated references between objects (see spec, sec. 1, lines 25-28, which implies this limitation because the contacts within the queue are distributed based on criteria associated with each contact and agent).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Mears et al to include the use of providing an identifier to the contact which it represents and a skillset identifier enabling it to be identified in a search for objects representing contacts which match given skillset criteria as taught by Mears et al in order to improve upon managing a queue of contacts, as implied in sec. 1, lines 20-24 of Mears et al.

15.   Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hemm as applied to claim 6 above, and further in view of Wood et al. (US 2004/0259531), herein referred to as Wood.

Although the system disclosed by Hemm shows substantial features of the claimed invention (discussed above), it fails to disclose that the software objects is stored in two corresponding copies, a

first of said copies being stored in the queuing module memory space and a second of said copies being stored in a replication service memory space, and wherein a replication service is provided which is configured to ensure that changes to the first of said copies are reflected in corresponding changes to the second of said copies, and that changes to the second of said copies are reflected in corresponding changes to the first of said copies.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Hemm, as evidenced by Wood.

In an analogous art, Wood discloses a system for routing messages that uses a replicated queue in addition to another queue (see paragraph 193). Since there are two queues it is inherent that there are two memory spaces. It is also obvious that because the queues are replicated, any changes made to either queue will be reflected among the other replicated queue. At the time of the invention, a person having ordinary skill in the art would have found it obvious to use a replicated queue in order to minimize the possibility of a single point of failure.

Response to Arguments

16.   Applicant's arguments with respect to claims 1-17 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip J. Chea whose telephone number is 571-272-3951. The examiner can normally be reached on M-F 6:30-4:00 (1st Friday Off).
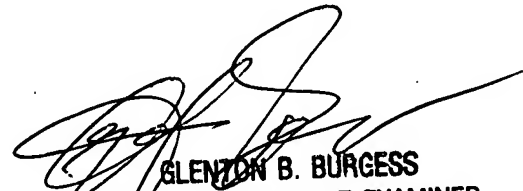
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Burgess can be reached on 571-272-3949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application

Information Retrieval (PAIR) system. Status information for published applications may be obtained from

either Private PAIR or Public PAIR. Status information for unpublished applications is available through

Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC)

at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative

or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-

1000.

Philip J Chea
Examiner
Art Unit 2153

PJC 9/19/07

GLENTON B. BURGESS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100